

see Gough Kent 29

THE
INRICHMENT
Of the Weald of
KENT.

OR

A Direction to the Husbandman,
for the true Ordering, Manuring, and In-
riching of all the Grounds within the Wealds of
Kent, and *Sussex*; and may generally serve for all
the Grounds in England of that Nature:

As

1. *Shewing the nature of Wealdish Ground, comparing it with the soyl of the Shires at large.*
2. *Declaring what the Marls, and the severall sorts thereof, and where it is usually found.*
3. *The profitable use of Marl, and other rich manuring, as well in each sort of Arable Land, as also for the increase of Corn and Pasture through the Kingdome.*

Painfully gathered for the good of this Island, by a man
of great Eminence and Worth, but revised, enlarged, and
corrected with the consent, and by conference
with the first Author.

By G. M.

LONDON,

Printed by *W. Wilson*, for *George Sawbridge*,
at the Bible on Ludgate-hill, near
Fleet-bridge. 1664.

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THE
KENT
OR



Printed by N. Wilson, for George Sawbridge,
at the Bible of Ludgate-hill near



TO THE
HONOURABLE
Knight, Sir GEORGE RIVERS
of Chafford, in the County of
KENT.

SIR,



*Ad Ino Scale (more than this bare
and plain moulded Epistle,) by which
to come to your worships eares, yet in
respect of the honest livery which it
carries, (bring necessary and husbandly
Collections, especially gathered for the
Country and Soyl wherein you live) I
know it cannot chuse but find both fa-
vour and mercy in your acceptions; but
when I call into my consideration the*

*great worthiness of your expence in this, and all other the like
affairs, which tend to the general benefit of the Common-wealth,
and weigh the Excellency of your Wisdome, Judgment, Bounty,
and Affection unto Hospitality (which giveth both strength and ad-
vancement to projects of this nature) I could not but take unto
my self a double encouragement, and boldly say unto this Work
which I offer unto your goodness, Go and approach with all thy
sweetness before him, he that so perfectly knows all which thou
canst or wouldst discover; he that is able both to correct and a-*

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mend

The Epistle Dedicatory.

mend any thing that is imperfect in thee, he, for vertues sake, will never forsake thee. Believe me (worthy Sir) should this Subject wish it self a Patron, I do not think it could wish beyond you; for you are a volume full of all that of which it intreateth: witness your years, your supplication of the poor, and your continuall employments, with any of which there is not (of your rank) a second living in your Country, to walk hand in hand with you. Being then (dear Sir) the oldest and best friend to your Country, forsake neither, nor this which comes to serve it; and though in this Glass some lineaments may appear imperfect, yet by the help of your favour (though little be exact, or most excellent) nothing shall be professed unworthy the survey of your worthier patience. And so I rest,

Your's to be commanded





A Discourse of the Weald of Kent; and a comparison of Arable lands therein, with the other parts of the Shires. Together with some necessary counsels for the ordering and enriching of the marlable Lands in the Weald, as generally in any part of this Kingdome.



He Weald of Kent is the lower part of that shire, lying on the South side thereof, and adjoyning to the Weald of *Sussex*, to the west.

Further Ad-
ditions,

The Weald, both in *Kent* and *Sussex*, was sometimes all (or the most part) woody, Wild, and (in the first times) un-inhabited, and from thence took the name of Weald, from the *Saxon* word, *Weald*, or *Teal*, or *Weald*, which signifieth a Woody Country, or Forrest-like ground. The *Brittans* called it *Andred*, which signifieth Greatness or Wonderfull, and in the Latin it was called *Salus Andred*, (that is to say) the Chase or Forrest of *Andred*, by reason of the great circuit, or large bounds thereof.

Touching the true boundary or limits of this Weald, there have been divers opinions, and most of them various, and much differing both in place and quantity, but that which is the nearest and best allied unto truth, both according to the opinions of *Ase-rius Monevensis*, *Henry of Huntingdon*, and others of most credible report, is, that it extendeth from the City of *Winchelsey* in *Sussex* an hundred and twenty miles in length towards the West; and thirty miles in breadth towards the North. Now, although this report be most agreeing unto verity, yet who knows not that curiosity may raise up many objections to withstand it: and therefore Mr. *Lambert* in his *Perambulation of Kent*, hath prescribed the best and more infallible way to find out the true and

certain bounds of this Weald, to be only by Jury, or the Verdict of twelve men impannelled for that purpose, either in case of controversy, or other particular search; and this hath been in these latter times brought forth most plentifully; for it hath been found by divers late Verdicts, upon speciall and most necessary occasions, that the Weald of *Kent* is truly, Mr. *Lamberts* second step in his Perambulation of *Kent*, reaching from *Winchelsey* in *Sussex*, and that hill there, unto the top of *Rivers Hill* in *Kent*; and neither farther towards *London*, nor shorter towards *Tunbridge*; which agreeth so perfectly with the former limitations, that both may be received as most true and sufficient.

This Weald was for many years held to be a Wild Desart, or most unfruitful Wilderネス (as write the authors before mentioned) and indeed such is the nature and disposition of the soyl thereof to this very day: for it will grow to frith or wood, if it be not continually manured and laboured with the plough, and kept under by tillage; so as it may truly be said of it, *Incultæ reparantur vomere Sylva*. It is throughout (except in very few places adjoining to brooks or Rivers) of a very barren nature, and anapt either for pasturage or tillage, untill that it be holpen by some manner of comfort, as dung, marl, fresh earth, fodder, ashes, or such other refreshings, and that seemeth to have been the cause for which in old time it was used as a Wilderネス, and kept, for the most part, with herds of Deer, and droves of hogs, as is specified in divers historical relations.

And as there be yet remaining in *Sussex* divers great forrests, and sundry commons or waits, having five or six miles in length, which, for the most part, are not fit to be manured for Corn, and yeeldeth but little profit in pasture; so have there been also in *Kent* (within our memory) a great number of woody and over-grown ground, converted of late, even after such a manner as in the said perambulation is testified; where it is said: That although the Weald of *Kent* belonged to sundry known owners long since, yet was it not then allotted into particular Tenancies, as the other parts of the shire were, but it was in process of time, by little and little, gained, as men were contented to inhabit there, and so rid it of the wood. And hereof it is also, that besides sundry whole parishes which be

be named dens or new places, as *Tenderden, Malken, Beneden*, and sundry other, there be moreover many smaller portions almost in every part of the Weald of *Kent*, which be likewise called Dens; as the Den of *Cranebrook* in *Cranebrook*, the Den of *Hawkhurst* in *Hawkhurst*, and such others; which (as it seemeth) were at the first undertaken to be manured by sundry particular persons, whose names were then taken for those very Dens, and continued many years together, as by ancient evidences it doth yet appear, howsoever the age of long time hath now almost worn and consumed them all out of knowledge. Neither doth the Weald of *Kent* contain so many great mannors or courts (for the proportion of the largeness) as the rest of Shire doth, but was appertaining, for a great part thereof, to sundry of those mannors which do lye at large dispersed thorow the Shire, whereof each one had a great portion in the Weald, which both in the book of Dooms-day, and in sundry the court-Rolls, and Rentals, passeth by the name of Weald, and *Silva Porcorum*, or swine gats, which were granted to divers of the farmers and owners of sundry tenancies which did belong unto those dens and other Lands within the Weald.

And albeit these Dens be for the most part good large portions of Lands, that be now broken into many several possessions, so as the same one Den sufficeth twenty Householdiers at this day, yet it is very likely that each man at the first had his several Den wholly and unbroken, whereof he and his posterity beareth name, untill that the same was by the custom of *Gavelkind*, by sale, or by exchange, divided and distributed amongst others into parts, as we do now seethem. But howsoever this Weald be of it self unfruitfull (as I said) and of a barren Nature, yet so it hath pleased the providence of the Almighty to temper the same, that by the benefit of *Margle* or *Marl* (as it is commonly called) it may be made not only equal in fertility with the other grounds of the shire, as well for corn as Grass, but also Superiour to the more and greater part of the same. The which manner of bettering the ground is not now newly discovered, but was the ancient practice of our forefathers many years agoe, as by the innumerable Marl-pits digged and spent so many years past, the trees of 200. or 300. years

The use of
Marl is
ancient

Marling was discontinued and is now revived.

years old, do now grow upon them, it may most evidently appear, besides the which we have mention of Marle in books of gainage or husbandry, that were written in the dayes of *R. Edward* the 2d. or before, how be it the same manner of dillage, by means of the civil Warrs, maintained many years as well in the time of the Barons Warrs, as of the warrs between the house of *York* and the family of *Lancaster*, was so given over, and gone out of use, untill these thirty or forty years, that it may be said to have been then newly born and revived, rather than restored, because the very true art of inriching the ground by Marle, seemeth to lye hidden in part, as yet not to be discovered to the full: for in this short time we have seen many arable grounds, which, for sundry years after the marling of them, have plentifully born Wheat and other grain, to be now become unfruitfull, and so will they continue, albeit they should be now marled again. And this commeth to pass by the ignorance of the right manner of ordering the Marle, which is as strong and chearfull as ever it was before, howsoever it worketh not this natural effect, through the unskilfulness of the Husbandman, that both wasteth the Marle, and loseth withall his time, his labour, his cost, and the profit of his ground. I cannot deny but a man shall see some grounds of nature fit to take Marle, and of situation so near to Marl-pits long time opened, that they might be marled plentifully with little charge, and have been heretofore marled indeed, and yet the same to lye now unplowed, and not only barren of themselves, but also unapt for Marle, and incapable of amendment by tillage: but I must say withall, that albeit the men in those former ages had the right ordering of Marl, yet were they not all good Husbands alike, neither doth the field joy alike under the Farmer, and under the very Owner of the same, the one seeking the very uttermost gain that may be made during his short interest, and the other endeavouring to perpetuate his commodity, even to the end of his estate, which hath no end at all: so that through the unskilfulness of the one, and greediness in others, the ground may sooner be crammed to death with Marle, than it shall be made the better or fatter by it. The reason whereof I will reserve untill that I have cause to teach in particular after what man-

ner

ner and measure the ground is to be marled. In the mean while, I will open the nature and conditions of this Wealdish ground, comparing it with the Soyl of the shire at large; and afterward declare unto you what the Marl is, and what sorts thereof there be usually found in the Weald of Kent; and lastly enter into the true and profitable use thereof; as well in each sort of arable Land, as also for the increase of Corn and Pasture through the Kingdome.

The arable ground of this Weald hath commonly a fleet and shallow mould to be turned up by the Plough, so as in many places the dead earth or mould is within three inches of the face of the ground, and in the best places, the good Mould exceedeth not six inches in depth at the most; and therefore, it wanteth convenient substance to nourish Corn any long time, but will faint and give over after a crop or two; for the which reason also, it cannot yield any sweet or deep grass. Besides this, the Weald hath many copped or hillish grounds, out of which there do many Quirs or Springs of water issue, that make it cold and barren; and from these hillocks, the best part of the good Mould is washed down into the VVater-courses and Dikes that be made to divide and drain the Land. Furthermore, the Weald is divided into many small inclosures, the biggest sort (for the most part) of which, are between sixteen Acres and twelve in quantity, and thereby hath it many Hedges and Trees, which in unseasonable Weather do keep both the Sun and Wind from the Corn, so as for want of that succour and comfort it groweth, and many times roteth into the earth, so that it cometh not, nor eareth, nor prospereth not kindly many times. And these small Closes are caused by this, that men are not able to Marl any great part or quantity of ground at once; and having marled a little, they are desirous to sow it with Corn: for the preservation whereof, as also for draining it, they are enforced to make so many and small severalls: from all which reasons it is plain, that there is little good arable Land there, and rarely any good Pasture; those only places accepted, which are amended by irrigations of floods, which there is called flowing and over-flowing. Contrariwise, the arable land of the Shire at large, hath a deep and fat Mould of good earth, that is

able to bear five or six good Crops together, without intermission; and after 3 or 4 years rest, will do the like again, and may so ininterchangeably keep that course for ever: yet, there be many grounds that are sowed without ceasing, because the Mould is so deep, that when the upper part thereof beginneth to faint and be weary, men can add some strength of Cattel and with the Plough go deeper, and fetch up a fresh Mould that will continue for a long season. Furthermore, this arable ground is a hollow dry ground, for the most part, on a deep Clay, that by tillage, and the weather, will become dry and spongy; so as the Rain there washeth in the fat of the earth, the rather because it is not so hillish and sliding as the Weald, but more level, even, and Champion also, by which the Sun and Wind do dry the Corn, and do make it earn of care well, and yield a purer flowre than that which is sobbed with wet, and hath long time lien before it be dried again. But for as much as the great odds between these two sorts of grounds, may be made even by the help of Marl, if it be rightly ordered, as I said, I will not shew you what it is, and how many sorts thereof be found in this Weald of our Country. Marl is indeed, as it is in name, the fat (or marrow) of the earth: for so did the *Germanes*; and so did our elders the *Saxons* tearm it, of the word *Marize* which we found Marrow, and thereof we call it marling, when we bestow that fat earth upon our lean ground. *Pliny* saith, that the *Brittans* (meaning us) did use to amend their Land with a certain invention which they called *Marga*, that is, the fat of the earth; and it is to be seen in *Conradus Heresbachus*, and the *Germanes* do use it to the same end, and do call it by the same name till this very day: it is therefore a fat, oily and unctuous ground, lying in the belly of the earth, which is of a warm and moist temperature, and so most fertill; seeing that heat and moisture be the father and mother of generation and growth; howbeit this is not a pure and simple marrow (as that is which lyeth in our bones) but a juice, or fat liquor mingled with the earth; as is the fat which lyeth mixed, and dispersed in our flesh, so as the one may be drawn away, and the other remain, as it shall anon appear unto you.

Four sorts of
Marl,

Four sorts of Marl be found in this Weald, known asunder

der by the difference of colours , and thereby also differing in degrees of goodness one from the other: for there is a grey, a blew, a yellow, and red Marl, all which be profitable, if they be earthy and fat, or slippery as sope: and most times little worth, if they be mixed with sand, gravel, or stone. So the blew is reputed the best, the yellow the next, the gray the next, and the red less durable than the other three, and yet it is thought the red to be the better, if it be found upon the blew, or others. These Marls do lye in veins or flowers, amongst those hillocks or copped grounds most commonly, whereof I have spoken, and do oftentimes shew themselves at the foot of the hill, or about the mid way, between the foot and the top thereof; some of them have over them a cover of ground, which we call Cope, not exceeding seven or eight foot in depth, some lye deeper, and other some do arise, as namely, where the ground lieth not high: and that Marl commonly is very good; and there is in diverse level grounds good Marl.

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3. 4.

all the soil
is all the soil
is all the soil

And as Marl is for the most part of these four colours, so is arable ground for the most part of these four sort following; that is to say, either a cold, stiff and wet clay, which is either the Cope of the Marl, or lieth near unto it, and is therefore commonly called, *The Marl Cope ground*; or a Hazel Mould, which I count to be one of the best wealdish Moulds, being a compound Mould, and very good for Marl, and will quit the cost very well. Then there are two sorts of sandy Mould, the one being a reasonable good kind, but not equal to the hazel Mould, for you shall have in divers places of the VVeald, this hazel mould to bear two or three good crops of VVheat, being Summer fallowed, together, which you shall hardly have of any sandy ground without mending, but as I said of the better sort of these two kinds of sandy moulds, you have commonly very rich VVheat, being well Marled, which is not so barren as the other, but this last kind of sandy Mould is a very barren kind of ground, and hath a very fleet Mould, and you shall have very heath grow upon it in divers places, and yet being ordered, as followeth, with Marl, will bear both good Corn

1.

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3. 4.

and Pasture, And now that we may the better understand how to Marl and manure every of these sorts by it self, you must know that the hazel-ground, being dry, and not subject to Winter-springs, or tears of water, (for which, some call such, A Whining or weeping ground) is to be handled thus.

The ordering
of the Hazel-
Mould.

First, Plough it as deep as you can, with the strength of eight beasts at the least; and be not afraid to Plough up some part of the dead earth that lyeth under the upper good Mould: for the Sun, the Rain, the Wind, and the Frost, will in time mellow and amend it; and besides that, the Mould will be the deeper for a long time after, and thereby keep it self the longer from being stiffned with the Marl. Then you may bestow 500 Cart-loads (as we call them) of Marl upon each Acre thereof, every load containing 10. or 12. bushels of eight gallons, and each Acre containing 160 Rods of 16 foot and a half to a Rod. Then also you may chuse whether at the first breaking up you will sow it with Oats, to kill the grass, or else first Marl it, and sow it with Wheat, or otherwise Summer-fallow it in the *May* after the Oats, and then Marl it, and sow it with Wheat. Upon that fallow or gratten, (as we call it) you shall do well to sow it with Pease, and at *Michaelmas* following, to sow that Pease-stubble or gratten with Wheat again, which also will be the better, if the Summer wherein it carried Pease, were moist; because the Pease being rich and thick, do destroy the Grass, that, together with the washing of the fallows by rain, doth greatly consume the heart and vertue; or, as we call it, the state of the ground. But if that Summer were dry, then is a fallow best; because the Sun with his heat doth much good to the ground, and inableth it the better to bear out the weather in the Wheat season ensuing. If you like to sow it, as I said, with Pease, sow them as early and timely as you may, for they will be so much the sooner harvested, and then also you may Plough or stir your gratten the sooner, whereby it will be the better hardned to bear out the Weather in the time of sowing of your Wheat: but I doubt, Pease doth somewhat stiffen it. Two bushels of Wheat do suffice for the sowing of an Acre hereof, except it be for the first crop, after the

the new breaking up of the ground; during which time, there is found a worm called an *Emble*, which in *French* signifieth Corn in the ground, being of colour yellow, and of an inch in length, and will eat some part of the Corn; but if you sow it thick, it will be both small eared, and thick, and slender of straw, which the Rain and Wind will bear and hurl down, and then it will scarcely rise again; or if it do, yet through the nearness of the shadow of the Trees and Hedges, that in so small closes be many, it will rather rot for want of drying, than come to maturity, that is, to perfect, hard, and full grown Corn. After your first Marling, you must carefully fore-see, that you Plough not the ground either with deep or broad Furrows, but sleek and narrow, lest you cast your Marl into the dead mould, for Marl differeth much from Dung in this behalf; Dung spendeth it self upward, and howsoever deep it lye, the vertue thereof will ascend: but Marl, (as saith Sir *Walter Henly*, in his Husbandry) sendeth his vertue downward, and must therefore be kept aloft, and may not be buried in any wise. Furthermore, if your ground be hillish or copped; it shall be fit that you make your Ridges 7 or 8 foot broad at the least; for in such falling Lands, the more broad Furrows you make, as you must make many, where you make Ridges, the more of your Marl shall be washed, and carried into the bottoms. It is good also to draw a cross or quarter-Furrow, and opening the ends of your Land-Furrows stopped, into it, to leave the other ends of your Furrows, that the water-shoot run not all the length of the field. Again, this ground will alwayes be sown under furrow, and that also before *Michaelmas*, if the season will so permic, for this ground (if it be well husbanded) will be mellow and hollow, or loose, whereby through Rain and Frost, it would sink down from the root of the Wheat, if it should be sown above Furrow, the which being uncovered, must needs be bitten and killed vvith the cold. It is also very fit that you harrov not this sort of ground too small, but that you leave the clods as big as a bovv, the vvich being mouldred vvith snovv and the frost, will both cover and keep vvarm vvhat is underneath

neath. Moreover, it shall be good, that upon some fair and dry day, in the beginning of *March*, you put your flock of Sheep into your Wheat, that with their trampling upon it, the Corn may be well, and fast closed with the earth, yea, and presently after (if it will bear foot) you may roll it as you do Barley, whereby both the Clods shall be broken, and the Gratten or stubble shall be more even and ready for the Mower. Generally you must understand, that after you have bestowed your Marl in the field, you ought to let it lye unspread abroad, untill you be ready to plough, and then immediately after the spreading of it, turn it into the ground with the Plough; for otherwise, if it should lye long spread in the field, the Sun will spend no small part of the fatness thereof, although I know many desire it, because it will be the smaller, being burned with the Sun; which I like not. And therefore also no good Husband will carry and spend his dung in the time of Summer, except he do presently withall plough it into the ground; for although the Mould of the arable Land it self will take good, if it be turned to the Sun, which will both dry and fasten it, yet the matter fareth far otherwise with the Marl, from which if the Sun shall draw and suck the fat moisture that maketh the Land fertile, then becommeth it (as *Columella* speaketh of the worst sort of ground) *Solum siccum, pariter & densum & durum, quod siue exerceatur, siue cessat, colono refugiendum est*: It becometh (saith he) a dry, thick, and lean Clod, which, whether it be tilled or laid to rest, must be forsaken of the Husbandman as unprofitable. And now your Hazel mould being thus marled, plowed, sown, and manured, you may not charge with Wheat above twice, and then it must rest five or six years together; all which time it will bear a very good and sweet Pasture, well set with a white Clover, or three leaved grass, most barning and profitable, both for Sheep and Bullocks.

After those years ended, it will grow to some Moss, or will peradventure cast up Broom; and then it is time to break it up, and sow and handle it as before, for two other Wheat-seasons or crops, leaving it a Whearen-gratten or stubble, rather than with an Oat gratten or stubble, which
bur-

burneth the Land being marled. Being thus interchangeably sowed and rested, your Hazel mould will continue good arable and pasture, by the space of thirty years together, whereas if it should be continually sowed, six, or seven, or more years together without rest, it will become utterly unfruitful, both for Corn and Cattel also. Neither will it any thing avail to marl it over again, when it is so decayed, because the former marl having the juice exhausted by continuall Tillage; whereof the Corn sucketh one part, and the Sun, VVind, and VVearth dry and wasteth the rest, is but a dead Clod (as I said) that is not capable of new Marl to amend it, nor casteth any profitable grafs at all. For proof hereof, I my self have seen, that the common earth of High-ways; by treading of Cattel, washing of Rain, and the drying of the Sun and VVearth, lay separated from the natural juice, which it had in the pits and spreading it upon the ground, I saw the Land was not only not amended, but much the worse by it. And now for an end of handling this sort of Hazel-ground; if it shall appear unto you that five hundred loads of Marl upon the Acre, have clanged, stiffened, and too fast bound your Land (as indeed the nature of Marl is to bind and to stiffen) then take you some of these wayes to help it: either rest it four or five years, or fodder upon it, being you bring it up, with so many Cattel as you may; or take the uppermost part of your Ditches, or Fore-Lands, or wast places of your fields, which you may mingle with Dung, and which, before you sow your Wheat, you may lay upon your fallow, and stir it in with your plough, and by this you shall both loosen your Marl, and refresh your ground: so that within forty years, the mould of your ground will clean eat up and swallow the Marl that you lay upon it; and then become hungry, and is capable of Marl again, as it was before at the first.

And by this also you may see the very cause for which it is good, not to sow your marled land continually, but to pasture it by turns, and so give it rest; namely, because the continual plowing doth exhaust and spend the fat of the Marl, leaving the drossie, dry, and fruitless parts thereof, to lye and cover the face of your ground: whereas pasturage, through the dunging,

crea-

treading, and foddering of Cartel, doth increase a new Mould, which mingling it self with the dead Mould, doth in the end give some life and heat unto it. And therefore these Farmers and Owners that have been at the cost to Marl their ground, and will not forbear to till it, but hastening to raise their charge, do thereby utterly strike it with barrenness, are like to *Aesop's* man, who having a Hen that laid him every day a golden Egg, and being greedy to have all the gold at once, did therefore kill the Hen, thinking to have found her belly full of gold, and so was both defrauded of that he looked for, and lost also what he had before. Hitherto of the nature, ordering, and marking of this hazel ground. Generally now for the continuall fallowing and stirring thereof, you must understand, it may neither be fallowed wet, lest it answer more Grass than Corn; nor yet so dry, that the dead bottom swell up, as in great drowth it will, and swallow the good Mould that lyeth above: and therefore bind not your self to any precise time of any moneth, but the opportunity either in *May* or *June*, as you shall find the weather to have prepared it for your desire. In the like temper you ought to stir it after a shower, after Saint *James* his day, or in the end of *July*, for so will it be dry and hard before the time of sowing: whereas if it be stirred latter; every small Rain will distemper it into Dirt and Mire, by reason of the tenderness thereof, and then can you not fitly bestow your seed upon it.

The ordering of the Marl Cope-ground, The Marl Cope ground followeth, which is most commonly, (as I said) a stiff, wet, cold Clay, and not so fit as the former to be marled for Corn; except in some few fleet places thereof, but yet it may serve for Pasture or for Oats; such of them as be marled, must be fallowed fleet or shallow, lest the marl become drowned in the wet: then being marled, they may, in dry Summers, (and not over-moist Countries) bear Wheat in some mediocrity. Three hundred loads at the most of Marl are sufficient for an acre of this kind, and two bushels and a half of Wheat will sow the same, which must be cast above furrow, fourteen, or twenty dayes before *Michaelmas*. It requireth round, high, and narrow Ridges, and that the

the water furrows be stricken somewhat deep, the better to convey moisture from the Corn, and that it be left cloddy as much as may be; and yet to say the truth, such as will convert this sort of ground to Tillage, must provide a greater quantity of rich ground or Greet (as we term it) and Dung, than of Marl it self, to amend this Land withall. But if there be any ground that is light and whining, or weeping, because of Springs that are therein, and therewith doth cast up Rushes, let that be marled upon the green Land with four hundred or five hundred loads upon the acre, about the latter end of Summer; for so will the Marl sink into it, and cast up a sweet grasse for eight or ten years together, untill that the Marl be sunk so low, that another sward or crust of earth be grown over it; and then it is time to plow it, but yet very fleet and narrow, for so will it bear good Oats: but if it be so wet that you cannot adventure to sow your Wheat upon it, because the Rushes be not killed with this first plowing, then may you sow it again with Oats, drawing good water-furrows to drain it, because it will be the wetter for Plowing, and thereby the Marl also will the sooner lose his force, thus doing, let it lye to pasture again.

Rushes.

There be some other grounds of Marl Cope, which carry a foure grasse, and the Dyers-weed, (commonly called Greening weed) and having a great tore thereof, the which also may be amended by three hundred or four hundred load of Marl upon the acre of the green Land; for the Marl will both rot the tore or vesture thereof, and also enrich the Mould very much; so as it will answer good pasture twelve years after: and when you shall perceive that the Marl is well sunk, then may it be Ploughed fleet and narrow, sowed with Oats and fallowed; so may it both bear good Wheat, if it find a good season, and be the richer a long time after, partly by the benefit of the Marl, partly by the rotting of the tore and sward, and partly by the dung and water of the Cattel that pasture upon it: for the sweeter the Pasture is, the more beasts it feedeth, and the more beasts it beareth, the more it self is amended by it.

Dyers-weeds.

C

Touch-

Touching the fallowing of this ground, great heed is required; for as it fwyellerh more than the Hazel-ground, if it be taken hard and dry, so it is more grassie than that, or the Sandy Soyl if you fallow it wet: The season therefore followeth commonly in *April*, or in the beginning of *May*, for to fallow it, and to stir it about *Midsummer*, or so soon after as the rain shall have prepared it meet for your unshod Oxen to labour upon it. Many men fearing to hit the right season for this ground in the Spring of the year, do make it ready by a winter fallow before *Christmas*, and by stirring it before *Midsummer*, if they may; which manner is not to be disliked.

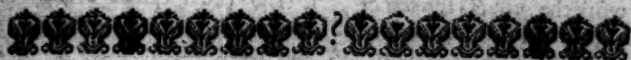
The ordering
of the sandy
moulds.

Lastly, cometh the two sorts of Sandy-ground, and gravelly mould, the one being to be ordered much after the hazel mould, saving he would have somewhat more Marl, and also would be favoured more in the often tillage, than it: for the hazel-mould will bear or endure more than the Sand. But this last sort of sandy-ground, being a very staring sand (as we use to call it) for much of it will bear Heath, being of it self very barren and very fleet or shallow mould, and over-hot and dry, and by reason of that extremity, is unfertile except it be marled very plentifully. And therefore when you break up this ground, Plough it as deep as you may, not fearing to cast down the best Mould thereof, because the Marl will pierce thorow, and sink down into it. An acre of this ground requirerh five hundred or six hundred loads of your Marl at the least. Sow alwayes under furrow about *Michaelmas* with two bushels and a half upon the Acre, which it will better carry than the Hazel ground: for although the straw be small, yet will it be harder, and stand better than that of the other. The worm whercof I spake, will be busie with that, that groweth on this sort of ground, untill that the heat thereof be somewhat asswaged by the Marl. If your ground be hilly, make your Water furrows in such sort, as I have said before, for the saving both of your Marl and Mould, harrow it very little, leave it as cloddy as you may. After that you have taken a Crop from it, fallow that Wheat Gratten or Stubble in *May*; after that stir it also, and then about *Michaelmas* sow it with Wheat again: for
it

it is not yet rich enough to bear you good Pease. This done, let it rest four or five years, and if it send up any plenty of broom, cut or pull them when they be of some mean bigness, but plough not the ground untill it have taken such rest; and after it, you may well break it up of new, and sow it with Oats: which Oats gratten or Stubble, you must summer-fallow, when it is at the Harvest: and then if you desire to have it in good heart, you must Marl it with three hundred or four hundred loads upon the Acre again. After this Crop thus taken, rest it five or six years, and then take one Crop more of Oats from it, and after a Summer-fallow, sow it with Wheat, and suffer it to lye a Wheat Gratten or Stubble, till it shall have rested as before is appointed for the hazel ground; and so it will be the better thirty or forty years after the marling. We have in this Weald a sandy and gravelly ground that is wet and weeping, the which is scarcely worth the marling, except the nearness of the Marl, and thereby the small cost and charge thereof, may intice a man to bestow the cost upon it with Marl, and then the best way is to Marl upon the green Land, or upon a fallow, with 500 load or more upon the Acre, or rather to take the profits thereof by Pasture then by Tillage: for it will hardly bear good Corn, which is soon killed with wet vapour that is continually sent up from the wet springs that lye under it. This sort of wet ground is to be fallowed, when it is both hard and dry, because it swelleth not as doth the hazel Mould, and may therefore be taken in *June*, if former fair weather bring it not to a dry season; and it is to be stirred also after a shower, in the like plight as the hazel mould before. Your marlable grounds being ordered in this wise, severally set down for each kind of them, will continually stand fruitfull either for Corn or Pasture, and albeit the high prices which Corn hath of late years carried, may allure some men to sow Corn incessantly, and thereby to spend their Marl, and to choak their arable in the end; yet I doubt not but the wiser sort can see that it is much better to maintain their grounds hearty and in good plight for ever, than to raise a short gain, that will bring a long and perpetual loss upon them: the rather also, because that Butter,

Cheese, and the flesh of beef and mutton be advanced in price equally, if not beyond Whear, Rye, Barley, and the other grains. Howbeit, a good Husband will make his profit of them both: for if he have one hundred, or one hundred and twenty acres of this Wealdish arable, he will so Marl and manure them, that dividing his land into five or six equal parts, he may continually plough twenty, or five and twenty acres for Corn, and yet lay to pasture the rest by turns, so that by the help of his Marl his land shall be continually rich and profitable, both in the one and other of them. And thus I have spoken of the Weald, describing the nature and property thereof; so may every man of discretion and judgment, which shall meet with earth of the same quality and condition (in what part of this Kingdome soever) make application of these Rules before rehearsed, and no doubt but the profit will make both the labour and cost profitable and pleasant.

THE



*The several waies, according to the opinion of
Writers, and the certain wayes, according to the experi-
ence of Husbandmen, for the destruction of Moals, or
Wants, which dig and root up the earth, and how
to reduce and bring the ground to the first
goodness having been been spoyled
by them.*

IT is needles either to describe the nature and quality of this Vermine, or the injury and hurt which they do to the Husbandmen, Gardiner, and Planter, since no Country is exempt from their annoiance: but touching the remedies, they are of greater secrecie, and therefore I thought good in this place to insert them.

The ancient Writers are of divers opinions, touching the manner of destroying this creature, and therefore have left unto us sundry medicines how to work the same: amongst the which one writeth, as an approved experiment, that if you take Walnut shels, and fill them with brimstone, chaff, and Petrosin, and then setting them on fire, put them into holes or trenches, through which the Moal passeth, the very smell or stink thereof will poyson them; so that if you dig, you shall find them dead in their holes.

Another affirmeth, that if you take brimstone, and rank stinking litter of horses, and burn it in the holes or haunts of the Moals, it also will imponen them, so as you shall find they will come out of their Caves, and lye dead upon the green grass.

A third affirmes; That if you take green Leeks, Garlick, or Onions, and chopping them grossly, thrust it into the holes, the very fume or savour thereof will so astonish and amaze the Moals, that they will presently forsake the earth and falling into a trance, you may take them up with your hands. Now there is not any of these medicines which can be

be dis-allowed; for there is no doubt but that they will work the effects spoken of, if the Moal can be brought to take a full scent thereof; but it is a Vermine curious of scent, and passing quick of bearing, and being in a spacious ground, will prevent these baits: and therefore they are rather to be applied for Gardens or little grounds, where there is but a Moal or two, than in large fields, where there be many hundreds.

To conclude for this matter of medicines, or for the helping of Gardens, Hop-yards, or any smal spot of ground, there is not any thing held more available, than to sow in that place the herb called *Palma Christi*; for it is found by certain experience, that wheresoever that herb groweth naturally of it self, or otherwise is either purposely sown or planted, there in no wise will any Moal abide.

Thus much I thought good to shew you for the use of medicine, and for clearing of small grounds: Now for the anoiences which happen to great, large, and spacious fields, through the multitude of Moals, there is only three absolute wayes for the curing of the same.

The first is, in the months of *March* and *April*: to view where they cast, and go about to make an extraordinary great hill, in which they build them nests, which is known by the newness of the Mould; then look for the new trench which leadeth to the same; for as she goeth she returneth: then with your Moal-spade open the trench in divers places, and then very still and silently, and observing to take the wind, to prevent both hearing and smelling, watch the Moal as she goeth or returneth, which is, Morning, Noon, and Evening, and as soon as you see her cast, strike her with your Moal-spear, made of many sharp pikes, and so cast her up, and kill her. Thus have I seen by one man an hundred destroyed in one day.

The next infallible way for the destruction of Moils is, If you can by any possible meanes bring in water to over-flow and wash your ground; for as soon as the earth is wet over, the Moals will come forth of themselves; and you may gather

ther them up with your hands at pleasure.

The last (indeed as much approved as any) is to take a live Moal in the month of *March*, which is their bucking or ingendering time, and put it into a deep brass-Bason, or other deep smooth Vessel, out of which the Moal cannot creep, and then at evening bury it in the earth up to the brim: and so leave it, and the imprisoned Moal will presently begin to strike, complain, or call, so that all the Moals in the ground will come to it, and tumbling into the Vessel, they are prisoners also, and the more prisoners, the greater will be the noise: and the more noise, the more Moals will come to the rescue; so that I have seen 50. or 60. taken in one night, and in one vessel or brass Kettle.

Now having thus learned how to destroy the moals, it is meet you also know how to prevent the coming in of foreign Moals; because though you keep your ground never so clean, yet if your next neighbour be an ill husband, his field may soon impoison yours again: therefore to prevent the coming in of any foreign Moal, make but little furrows or Trenches about your ground, and scatter in them small round balls made of Hemp-seed, or Hemp-seed and *Palma Christi* beaten together, and you shall not need to fear the coming in of any Neighbouring Moals, how many soever there be about you.

Lastly, for the reducing or bringing the ground to the first perfection again (for howsoever some Husbandmen say, Moe Moal-hills, moe ground, yet 'tis certain, that moe Moal-hills, less good ground) for never was yet sweetgrass seen on a Moal-hill; therefore to bring it to perfection, which I mean to be meddow ground, or ground to be mown, which Moal-hills cannot be, you shall first with a sharp paring shovel, pare off the swarth about three fingers deep, for fear of hurting the roots of the grass: and then the swarth taken off, dig away the rest of the Mould, and scatter it as small as you can round about the hill, then take the green swarth, and cutting it artificially, lay it close and fast, and level, where you took away the Mould; as if there had never been Hill there: and thus do to all your hills, though they be never

so innumerable; and after all your ground is levelled, as soon as the first shoure falleth, run all your ground over with a pair of back Harrows, or an Harrow made of a Thorn-bush, and it will break the mould as small as ashes, which will so comfort and refresh the rooe of the grass, that it will grow in infinite abundances, and sowreness which was caused by reason of the Hills, will come again to a perfect sweetness, and the meadow will be more fruitfull than before by many degrees. And thus much for the destruction of Moals, and the reducing of the earth to his first goodness.

FINIS.